Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ CN.2 \_\_\_\_\_\_\_\_\_\_

**Alg. 2 Complex Numbers Quiz Reflection**  CN.7\_\_\_\_\_\_\_\_\_\_\_

To complete this reflection, you must use your notes and homework to answer the questions.

1. Addition/Subtraction of Complex Numbers
   1. To determine if I will add/subtract complex numbers, I look at the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the equation.
   2. For example, #1 on the quiz was a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (addition/subtraction) problem.
   3. I can show this by circling the sign that shows it:
   4. After identifying if it is addition or subtraction, I need to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to get rid of parenthesis? Show the step.
   5. In order to simplify the expression, I need to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Show the work.
   6. My final answer must be written as a complex number; the general form for complex numbers is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Therefore, my final answer must be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. Multiplying Complex Numbers
   1. Describe how to verify that #4 asked to multiply the complex numbers.
   2. Describe how multiplying complex numbers is similar to multiplying binomials.
   3. Use the FOIL method to distribute the terms of the complex numbers, combine like terms and show your answer as a trinomial.
   4. The complex number property that is used for the next step in multiplying complex numbers is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   5. Therefore, turns into \_\_\_\_\_\_\_\_\_.
   6. Now the expression reads \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   7. By combining like terms, the expression is simplified to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   8. My final answer must be written as a complex number; the general form for complex numbers is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Therefore, my final answer must be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. Solving quadratic equations with complex numbers.
   1. The end goal of solving quadratic equations is to isolate \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   2. Since solving these equations is similar to a two-step equation, the first step of solving for the variable is to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Show the work.
   3. Because I want the variable to be isolates, the next step is to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Show the work.
   4. Since the variable is squared, I must \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of both sides to isolate the variable. When I do that, I MUST remember that my answer can be both positive and negative; therefore I need to add a \_\_\_\_\_\_\_\_\_\_\_ to the final answer.
   5. Now, I know that I must introduce complex number properties because will not get a real number answer since I cannot \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   6. I must use this complex number property \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   7. Therefore, my final answer is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. Quiz Corrections
   1. If you got lower that a 4 an question, you must complete quiz corrections for each problem with a mistake. Use the following format (corrections that are not done accurately or completely will not be given full points):

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Given problem** | **My answer** | **How to solve it**  **(Show all work)** | **Describe your mistake(s) and explain your new understanding** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |